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ABSTRACT

The purpose of this study was to determine whether it was possible to discriminate on the basis of personal/demographic, professional, and motivational factors among police officers (1) who were pursuing bachelors degrees, (2) who indicated they wanted to get a degree but were not pursuing it, and (3) who indicated they did not want a degree. Data were collected from 2,461 officers in 283 police departments through a national survey. A discriminant analysis of the data revealed that individuals not desiring a college degree were older, had more experience in law enforcement, and perceived college not as important to them either personally or professionally. Those desiring a degree or pursuing a college education were younger, had fewer years in law enforcement, and felt a college degree was important to them personally and professionally. Those who planned a degree but were not pursuing it were more career oriented than the degree pursuers and agreed cost and convenience were important factors influencing whether they would complete the degree. The degree pursuers were more oriented toward leaving law enforcement than individuals not attending college and did not believe cost or convenience was a factor influencing their decision to attend college. (YLB)

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Factors Influencing Pursuit of the Bachelor's Degree by Police Officers

by

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ABSTRACT

The purpose of this study was to determine whether it was possible to discriminate on the basis of demographic, occupational, and motivational factors among police officers who were pursuing the bachelors degree, police officers who indicated that they wanted to get a bachelors degree but were not pursuing it, and police officers who indicated that they did not want to get a bachelors degree. The data for the study were collected in a national study conducted jointly by the U.S. Department of Justice, Federal Bureau of Investigation and the University of Virginia. The present study focused on three kinds of variables: personal/demographic characteristics, professional characteristics, and motivational characteristics. A discriminant analysis of the data revealed that the individuals who did not want a college degree were older, had more experience in law enforcement and perceived that college was not important to them personally; and they did not consider college relevant to their professional expertise as law officers. Those individuals who said they wanted the degree or were actually pursuing a college education were younger, had fewer years in law enforcement and felt that a college degree was important to them personally and professionally. Those who planned a degree but were not pursuing it were more career oriented than the degree pursuers and agreed that cost and convenience were important factors influencing whether they would complete the degree. This group contained relatively more non-whites than the other groups. The individuals who were pursuing the degree were more oriented toward leaving law enforcement than those who were not attending college. They did not believe cost or convenience was a factor influencing their decision to attend college and they were less law enforcement career oriented than the other groups.

The purpose of this study was to determine whether it was possible to discriminate on the basis of demographic, occupational, and motivational factors among police officers who were pursuing the bachelors degree, police officers who indicated that they wanted to get a bachelors degree but were not pursuing it, and police officers who indicated that they did not want to get a bachelors degree. The data for the study were collected in a national study conducted jointly by the U.S. Department of Justice, Federal Bureau of Investigation and the University of Virginia (Chronister, Gansneder, LeDoux & Tully, 1982).

The need for college educated law enforcement officers has been expressed by national commissions (Presidents Commission on Law Enforcement and the Administration of Justice, 1967; National Advisory Commission on Criminal Justice Standards and Goals, 1973; National Commission on Law Observance and Enforcement, 1931) and many authors (Germann, 1967; Hoover, 1975; Leonard, 1971). One prevailing rationale for college educated police was the need to professionalize law enforcement (Lefkowitz, 1977). Education was seen as the instrument which would increase police efficiency, and at the same time make law enforcement more responsive to the needs of the general citizenry.

Review of the Literature

Research on adult education has taken several approaches over the past two decades. In addition to basic studies which

have utilized demographic data to describe who the adult learners are and how many of them are participating in formal or informal learning activities, increasing emphasis has been placed upon developing a body of knowledge about the adult as a learner and adult education as an important and viable area of inquiry.

Typology of the Adult Learner

Among the pioneering efforts in studying adult motivation for education was the research of Cyril Houle (1961). From this work Houle developed a typology of three motivational types which he labeled goal-oriented, activity-oriented, and learning-oriented. Boshier (1971) indicated Houle had subsequently suggested a fourth motivational type which can be called the universal learner. The goal-oriented include those who pursue education with some clear objectives in mind. The second group, the learning-oriented seek knowledge for the sake of knowledge and view education as a continuing process. The activity-oriented participate in learning for reasons that are unrelated to the activities in which they are presently engaged. This group seeks more of a social contact and select their activity based on the amount and kind of relationships it might bring. To the universal learner, learning is "interwoven in the very fabric of their being, they have never really partialled it out for conscious attention" (Boshier, 1971).

Sheffield (1964), using the Houle typology, prepared a list of 58 reasons for participation in adult education and sampled 453 adult education participants. From these results Sheffield extracted five factors, which he called orientations. The orien-

tations are: learning, desire-activity, personal-goal, societal-goal and need-activity.

Investigators who have utilized a factor analysis approach include Boshier (1971), Burgess (1971), and Morstain and Smart (1974). Boshier tested Houle's typology on a sample of 283 adult learners in New Zealand by use of the Education Participation Scale (EPS). Six major factors were identified: social welfare which consisted of motivations to achieve social and community objectives; social contact which consisted of motivations related to meeting personal social needs such as participating in group activity and meeting new friends; other-directed professional advancement which referred to meeting requirements or expectations of authority figures, peers, and/or the occupation; intellectual recreation which reflected the use of education as a break from routine and to relieve boredom; inner drives for professional advancement; and, social conformity.

Continuing to build upon Houle's initial effort, Burgess' (1971) research involved study of a list of eight hypothesized categories of motivation for adult participation in education, which resulted in a final list of seven motivation types. Burgess' final categories included: the desire to know, desire to reach a personal goal, desire to reach a social goal, desire to reach a religious goal, desire to escape, desire to participate in an activity, and desire to comply with formal requirements.

Replicating the Boshier study, Morstain and Smart (1974) utilized the 48 item EPS Instrument in studying 648 adults

enrolled for part-time course work. They identified six factors. Factor I, social relationships, consisted of items expressing educational motivation such as to make new friends, improve social relationships, fulfill need for personal associations and friendships, and to share common interest. Factor II was entitled external expectations and consisted of variables which reflected a desire to pursue part-time study to comply with instructions or expectations of peers or someone of formal authority, or to meet employer policy and/or requirements.

Factor III was entitled social welfare and involved motivation reflecting humanitarian concerns. Factor IV consisted of a concern for advancement in one's vocation or profession and was entitled professional advancement. Factor V was entitled escape/stimulation and consisted of variables reflecting a need to escape from routine activities and frustrations, or to become involved in stimulating pursuits. The final factor was labelled cognitive interest and, as the authors indicated, the dimension reflects a basic inquiry motivation. In a later publication Morstain and Smart (1977) cited five types of adult learners. The typology was labelled according to motivation as: non-directed, societal, stimulation seeking, career oriented, and life change.

In addition to this work directed to the development of motivation typologies, there has been an increased effort at identifying personal and environmental factors which may inhibit or facilitate the adult's participation in educational activities.

Factors Related to College Attendance

Interest in factors which differentiate between college enrollees and non-enrollees from the adult population has gained increased interest in recent years. Whereas research on developing typologies of motivations for education has dealt primarily with populations of adults who are participating in educational activities, studies of factors which inhibit or facilitate such participation must by necessity involve a population of both participants and non-participants.

In a study of registered nurses, Pollok (1979) attempted to identify factors which differentiated between in-service personnel who did and did not choose to enroll in baccalaureate programs. Her study was designed to identify both encouraging and discouraging factors and utilized a sample of 302 adults representing both enrollees and non enrollees. Among the major encouraging factors were: job improvement, relevance of courses, affordable level of tuition, courses available at appropriate time, courses available on part-time basis, desire for a baccalaureate degree, intellectual stimulation, availability of financial aid, promotion requirements, and the opportunity for self-directed learning. The major discouraging factors included: unavailability of financial resources, time required for courses, tuition expense, need to give up present job, and time required to complete degree requirements.

Many of the factors identified by Pollok (1979) are similar to the findings of other studies. A major contribution of this study was the use of both enrollees and non-enrollees in

developing an understanding of factors which encourage and discourage adults as potential learners. Most studies to date have focused only upon adult participants in educational activities and have been primarily descriptive in nature presenting a profile of this population on basic demographic factors (Arbeiter, 1977; Cross, 1979).

The differences in participation rates between men and women has been chronicled by a number of authors (Arbeiter, 1977; Bishop & Van Dyk, 1977; Cross, 1979; Glenny, 1980; Morstain & Smart, 1974, 1977). The National Center for Education Statistics reported the rate of participation was about the same in men and women (Cross, 1979).

Race as a differentiating factor in adult participation has been highlighted in several studies with evidence pointing to a higher percentage of adult whites in the various age groups participating in education than either Blacks or Hispanics (Arbeiter, 1977; Cross, 1979). However, Bishop and Van Dyk (1977), studied a sample of men and women from standard metropolitan statistical areas and found that minority status did not appear to have a consistent effect on attendance. The intervening variable in the Bishop and Van Dyk findings on minority representation appeared to be the existence of low tuition colleges which provided both geographic and economic access for potential adult education participants. The difference seems to be more of a class bias than a color bias according to Cross (1979). In fact, when educational attainment was controlled, the participation rates for whites and non whites were roughly equal (Cross, 1979).

The relationship between adult participation and family income, college costs and the availability of financial assistance has been addressed by a number of researchers. Arbeiter (1977) presented 1972 data which showed increased participation in adult education as a function of higher family income. In the Bishop and Van Dyk (1977) study an increase in family income of $5,000 increased the rate of attendance of both husbands and wives.

While there is evidence that money may be a barrier for educational participation, Cross (1979) reported that if age and educational attainment are controlled, income has little influence on the rate of participation.

The impact of financial aid, in the form of the GI Bill, as a facilitating factor was also highlighted by Bishop and Van Dyk (1977) when they showed a significantly higher participation rate among male GI Bill recipients than of male non-recipients. Adult students were also found to be more responsive to tuition levels than young (17-22 age) students in decisions on college attendance.

The number of dependents and the age of dependents has been found to have an effect upon the participation rate of both men and women. Children of any age serve as an inhibiting factor on the participation of both husband and wife (Bishop & Van Dyk, 1977).

Geography in terms of access to educational activities for adults is a variable receiving attention in the literature (Arbeiter, 1977; Bishop & Van Dyk, 1977; Cross, 1979). The

availability of low tuition community colleges in urban areas has been shown to be related to participation (Bishop & Van Dyk, 1977). In relation to population density, Cross (1979) reported that "people living in surburban areas are more likely to participate in educational activities than those living in areas of sparse population or in the dense populations of central cities" (p. 100).

The obstacles that deter adults from participating in organized learning activities can be classified under three headings--situational, dispositional, and institutional (Cross, 1979). The situational barriers arise from situations in one's life at that time, such as transportation problems or lack of time due to job or family responsibilities. Dispositional barriers encompass attitudes, boredom with school, lack of confidence, or believing that one is too old to learn. The institutional barriers refer to barriers in which institutions discourage or exclude particular clusters of learners through inconvenient schedules, full-time fees for part-time study or geographic isolation (Cross, 1979).

Focus of the Study

The present study focused on three kinds of variables: personal/demographic characteristics, professional characteristics, and motivational characteristics. Personal/demographic characteristics studied were age, race, sex, marital status, and number of dependents. Professional characteristics included rank, years spent in the profession, years left in the profession, career orientation, department size, and stability of

work schedule. Motivational variables studied were of two types: environmental and personalogical. Environmental variables included job rewards, support from family, colleagues and superiors, attitudes of faculty and students at the educational institution, costs of education and financial constraints, relevance of education to the job, and, whether education was offered at a convenient time and location. Personalogical variables included the desire for social contact, the desire for stimulation and reduction of boredom, the desire for learning. For each motivational variable respondents were asked to assess the status (Reality) of the variable (e.g. do they get support from their colleagues to go to school?) and to assess whether this influenced their decision to go to school (Influence).

It was hypothesized that each of these variables would be related to pursuit of the bachelors degree and that a relevant subset of these variables would best discriminate among respondents who did not want to pursue the degree, wanted to but were not pursuing it, and were pursuing the degree.

Methodology

Instrumentation

Data for this study were collected through a survey. Inclusion of survey items was based on the following criteria. Any item must:

1. provide relevant descriptive data
2. be hypothesized to be related to educational attainment

3. assess one of four general dimensions: Department Characteristics, Personal Characteristics, Professional and Occupational Characteristics, and Educational Characteristics

4. elicit reality and influence assessments about Financial, Convenience, Social or Social Support, Institutional Atmosphere, Goal Congruence, or Job Relevance factors

Preliminary drafts of the items and format of the survey were reviewed by the FBI and University project personnel for face and content validity resulting in several revisions. A pilot draft was administered to 210 law enforcement officers who were attending the FBI National Academy in October, 1980. The instrument was then revised on the basis of the results of this pilot test. The final instrument included 86 items. Part I, Personal Data, included 22 items requesting data on personal, professional and educational characteristics. Part II included 32 items about conditions which might influence educational attainment. For each Part II item judgments about both the Reality dimension and the Influence dimension were required. Part II of the final instrument included six financial items, five convenience items, five social/social suport items, six institutional atmosphere items, five goal congruence items, and five job relevance items. Each item had four response alternatives for each dimension. The response alternatives for the Reality dimension were: Strongly Agree = 1, Agree = 2, Disagree = 3, and Strongly Disagree = 4. The response alternatives for the

Influence dimension were: Major Influence = 1, Moderate Influence = 2, Slight Influence = 3, and No Influence = 4.

Sampling

A stratified random sample of 353 police departments and sheriff's offices from all fifty states and the District of Columbia, was generated from the data base of the Uniform Crime Reporting Section of the Federal Bureau of Investigation. Stratification was on the basis of the size of the agency. There were over 60,000 law enforcement officers in these 353 departments. Within each department a five percent (5%) random sample of officers was selected resulting in a total sample of 3280 officers and deputies. Departments with fewer than 30 officers received one survey resulting in some oversampling of smaller departments.

Procedures for Distribution and Return of Instruments

The surveys were distributed in May, 1981, to the Training Coordinators in 57 FBI field offices. The Training Coordinators distributed the surveys to each participating police department. The Chief Executive Officer of each department, or his designee, drew the random sample of officers, administered, and collected the surveys. The surveys were then returned to the FBI Academy for delivery to the University of Virginia. At the University of Virginia, the surveys were processed and converted to card form for analysis.

The Chief Executive Officer of each of the 353 departments was notified of their selection for the study. Each Chief Executive Office received a packet which contained: a memorandum from the FBI requesting the cooperation of each department; a general information sheet explaining the purpose of the study; a sample copy of the directions for administering the survey; a sample copy of the letter to respondents from the Director of the Federal Bureau of Investigation; a sample copy of the survey; and a routing slip. In the memorandum from the FBI, the chief executive officers were advised that they would be contacted by an FBI agent from the nearest field office, who would either mail or deliver the surveys and directions for administering the survey. These packets were mailed from the FBI Academy in Quantico, Virginia on May 12, 1981.

At the same time, packets were sent to 57 FBI field offices around the country. The field office agent, designated Training Coordinator, was responsible for handling each packet. Within each field office packet there were three levels of materials. The first level was directed to the Training Coordinator and included: 1) an FBI routing slip from which had to be signed and returned; 2) a sample of the directions for administration of the survey; 3) a sample of the survey; 4) a general information sheet, and 5) a memorandum explaining to each Training Coordinator the purpose of the study and the role of the Training Coordinator in distributing the survey. Within the packet sent to each field office were unique packets designated for each sampled police department within the geographic area covered by that

field office. These packets were to be delivered to the person designated as "survey administrator" in each department.

The police department packets contained; 1) directions for selecting a random sample of respondents; 2) a copy of a letter to be provided to all respondents from the Director of the Federal Bureau of Investigation; 3) a general information letter providing background information on the study; 4) sufficient pre-addressed, stamped envelopes in which to return the completed surveys plus a few extra surveys in case of loss. The directions for selecting a random sample of respondents included a list of random numbers generated specifically for the department. The survey administrators were requested to number an alphabetical list of sworn officers and then circle those numbers which appeared on the list of random numbers. Those officers whose numbers were circled were included in the sample. In turn, each respondent received an envelope containing a survey and a copy of the letter from the FBI Director.

When each respondent completed the survey, they were instructed to seal the survey in the envelope provided and return the envelope to the survey administrator. The survey administrator collected all returned surveys and placed them in pre-addressed, stamped, envelopes which were then returned to the FBI Academy.

To summarize, each department received an advance notification packet. The field offices then received packets which included individual department packets. The field office Training Coordinators delivered the Police Department packets to the survey administrator in each department. Then the survey

administrators gave the actual surveys to a five percent random sample of officers. The survey was completed by the respondent, sealed in an envelope, and returned to the survey administrator. The survey administrator then mailed the instruments to the FBI Academy.

Although it was not possible to directly document the use of this procedure by departments, three kinds of evidence suggest that the procedures were followed. First, a random sample of 30 departments was selected, all of whom were reached by telephone. When asked if they had difficulties in implementing the procedure each of the 30 departments indicated that they did not have difficulties and that the procedures were followed as requested. Another 18 departments called the FBI Academy with various questions and indicated in the course of the conversation that they followed the sampling procedures. In addition, 31 departments returned unsolicited documentation of the sampling procedure along with the completed surveys.

Return Rate

As mentioned above, the original stratified random sample included 353 police departments from all fifty states and the District of Columbia. Within each department a five percent random sample of officers was selected resulting in a total sample of 3280 officers. Usable returns were received from 283 or 80 percent (80.2%) of the 353 departments and 2461 or 75 percent (75.3%) of the 3280 officers. Over two-thirds (69.4%) of the departments returned 100 percent of the requested sample.

Seventeen departments (5.0%) had an 80 to 99 percent return rate. Fifteen departments (3.9%) had a 50 to 79 percent return. Six departments (1.7%) had a ten to 49 percent return and 70 departments (19.8%) returned no instruments at all.

Return rate differed by size of department. Three hundred and ten of the departments sampled had 209 or fewer officers. A total of 629 surveys were requested from these departments and 602, or 96 percent (95.7%) were returned. The nine departments with 210 to 309 officers had a 60 percent (75 of 124) return rate. The six departments with 310 to 409 officers had a return rate of 79 percent (379 of 478). Finally, the 14 departments with more than 1000 officers had a return rate of 68 percent (1312 of 1941).

Results and Discussion

The research hypothesis of this study was that there were differences among law enforcement officers in background, job related variables, and motivational factors which would distinguish among those officers who said they did not want a college degree, those who planned to get a degree but who were not taking courses, and those who were actually taking courses toward a college degree.

The null hypothesis was that there was not a linear combination of the study variables which would distinguish among the three groups (alpha = .01). The multivariate statistical technique, discriminant analysis, was used to test the null hypothesis.

Prior to performing discriminant analysis the motivation data were further reduced through factor analysis. Separate factor analyses were performed of the Reality and Influence assessments. In each case, an R-Type factoring was completed using a classical or common-factor solution with interactions. A principal axis method was done. Squared multiple correlations of each variable with the remaining varibles were used as the initial communality estimates. After initial extraction of factors, a rotated solution was attained using the varimax method, an orthogonal relations method. The criterion for determining the final number of rotated factors was that the eigenvalues of the rotated factors equal or exceed 1.00.

The factor analysis of the 32 Reality assessments resulted in identification of three factors accounting for 25 percent of the variance in the 32 original items. A summary of the factor loadings is presented in Table 1. As can be seen in this table 15 of the 32 items had loadings of .30 or higher on the first

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Insert Table 1 near here

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factor. These items are of three major types. They reflect personal goals, a desire for social contact and stimulation, and the relevance of education to law enforcement. We labled this factor Personal and Professional Orientations. The five items which dominate the second factor have to do with the necessity of education for job maintenance, promotion and security and the perception of encouragement from fellow workers and superiors about continuing education. We labeled this Reality factor Job

Table 1

Varimax Rotated Factor Loadings for Thirty-two "Reality" Items
(n = 2461)

Reality Variables/Items	Factors 1	2	3	h^2
1. College courses will help me learn about law enforcement.	.60	.23	.03	.41
2. College courses are available that will help me increase my leadership skills.	.60	.22	.11	.41
3. I wish to obtain a degree for personal reasons.	.58	.11	-.09	.36
4. The goals of college degree programs are similar to my own.	.57	.19	.11	.37
5. College programs are relevant to my future career plans in law enforcement.	.56	.40	-.05	.48
6. College programs are relevant to the problems I face (or will face) on the job.	.55	.27	.08	.38
7. College programs provide opportunities for self-directed learning.	.54	.08	.09	.31
8. The people I meet in college programs are stimulating.	.53	.13	.11	.26
9. I have a desire to improve my mind.	.49	-.00	-.05	.24
10. Taking college courses will give me an opportunity to meet new people.	.49	-.03	.08	.25
11. I need to learn more about law enforcement.	.45	.13	-.09	.23
12. I receive encouragement from my family to continue my education.	.40	.24	.07	.22
13. College allows (will allow) an escape from the routine pattern of daily activities.	.39	.02	.03	.15
14. College faculty members have a positive or encouraging attitude toward students who are law enforcement officers.	.36	.23	.32	.29
15. It is important for me to meet people who do not work in law enforcement.	.34	.00	.05	.12
16. Other college students have a positive attitude toward students who are law enforcement officers.	.29	.22	.30	.22

Table 1 (continued)

Reality Variables/Items	Factors 1	2	3	h^2
17. College work requires too much of my time.	-.25	-.10	-.13	.09
18. I receive encouragement from my police co-workers to continue my education.	.15	.64	.20	.47
19. I receive encouragement from my superior officers to continue my education.	.13	.64	.17	.45
20. College course work or a Bachelor's degree increases my job security.	.20	.59	-.05	.39
21. College course work or a Bachelor's degree is a necessity for promotion.	.09	.46	-.06	.22
22. College course work or a Bachelor's degree is a requirement for my current job.	.03	.46	-.04	.21
23. College courses I might desire are offered at a convenient time.	.13	.06	.54	.31
24. College courses I might desire are offered at a convenient location.	.15	.04	.49	.26
25. Part time college programs I might desire are available.	.25	.01	.46	.27
26. Adequate financial resources are available for me to pursue college course work.	-.00	.05	.45	.21
27. The financial cost of pursuing college course work is too high.	.05	-.00	-.33	.11
28. College faculties are not open to ideas from students who work in law enforcement.	-.14	-.02	-.22	.07
29. Shift rotation interferes with college class schedules.	.10	.06	-.20	.06
30. GIBill and LEEP funds are not available to me.	.08	.00	-.19	.04
31. College programs available to me are not of the high quality I desire.	-.17	.00	-.18	.06
32. I am apprehensive about going to school for a Bachelor's degree.	-.13	.08	-.11	.04
Rotated Eigenvalues	5.34	1.37	1.30	
% Variance Explained (Rotated)	16.70	4.30	4.10	
Cum % Variance Explained (Rotated)	16.70	21.00	25.10	

Relevance - Outer Directed. The items loading highest on the third factor have to do with the costs of going to school and the con-venience of going to school. We labeled this third Reality factor Cost/Convenience.

The factor analysis of the 32 Influence assessments resulted in identification of four factors accounting for 42 percent of the variance of the 32 original items. A summary of the factor loadings is presented in Table 2. The 11 items with the highest

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Insert Table 2 near here

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loadings on the first factor reflect personal goals and the perception of the relevance of education to the job. This factor was labeled Job Relevance - Inner Directed/Personal Goals. The eight items loading highest on the second Influence factor reflect the desire for social contact in general, and at an institution of higher learning. This factor was labeled Desire for Social Contact/Institutional Atmosphere. The eight items with the highest loadings on the third Influence factor have to do with the costs of going to school and the convenience of going to school. The factor was labeled Cost/Convenience. The items with the highest loadings on the fourth Influence factor have to do with the necessity of education for job maintenance, promotion and security and the perception of encouragement from fellow officers and superiors about continuing education. It was labeled Job Relevance - Outer Directed.

Factor scores were generated for each subject on each of these seven factors. These factors were then used as potential

Table 2

Varimax Rotated Factor Loadings for Thirty-Two "Influence" Items

Influence Variables/Items	Factors 1	2	3	4	h^2
1. College programs are relevant to my future career plans in law enforcement.	.68	.11	.07	.27	.55
2. College courses are available that will help me increase my leadership skills.	.68	.18	.09	.20	.54
3. College courses will help me learn about law enforcement.	.66	.23	.07	.17	.52
4. I have a desire to improve my mind.	.65	.16	.23	.07	.51
5. I wish to obtain a degree for personal reasons.	.64	.09	.21	.12	.48
6. College programs provide opportunities for self-directed learning.	.62	.22	.15	.05	.46
7. I need to learn more about law enforcement.	.61	.20	.15	.09	.45
8. The goals of college degree programs are similar to my own.	.59	.25	.16	.09	.44
9. College programs are relevant to the problems I face (or will face) on the job.	.57	.26	.08	.14	.42
10. I receive encouragement from my family to continue my education.	.47	.19	.14	.32	.39
11. Part time college programs I might desire are available.	.44	.17	.42	.19	.44
12. Other college students have a positive attitude toward students who are law enforcement officers.	.10	.71	.22	.18	.60
13. College faculty members have a positive or encouraging attitude toward students who are law enforcement officers.	.20	.65	.19	.18	.53
14. College faculties are not open to ideas from students who work in law enforcement.	.13	.56	.19	.17	.40
15. Taking college courses will give me an opportunity to meet new people.	.35	.54	.04	.14	.39

Table 2 (continued)

Influence Variables/Items		Factors 1	2	3	4	h^2
16.	It is important for me to meet people who do not work in law enforcement.	.29	.53	.04	.14	.39
17.	College allows (will allow) an escape from the routine pattern of daily activities.	.26	.53	.14	.16	.40
18.	The people I meet in college programs are stimulating.	.38	.51	.12	.17	.44
19.	I am apprehensive about going to school for a Bachelor's degree.	.10	.40	.21	.14	.24
20.	College programs available to me are not of the high quality I desire.	.20	.35	.23	.07	.22
21.	The financial cost of pursuing college course work is too high.	.11	.14	.66	.06	.47
22.	Adequate financial resources are available for me to pursue college course work.	.24	.04	.65	.09	.49
23.	GI Bill and LEEP funds are not available to me.	.09	.1[illegible]	.58	.10	.38
24.	College courses I might desire are offered at a convenient time.	.40	.12	.49	.16	.43
25.	College courses I might desire are offered at a convenient location.	.40	.17	.44	.13	.39
26.	College work requires too much of my time.	-.04	.23	.38	.12	.21
27.	Shift rotation interferes with college class schedules.	.15	.19	.38	.13	.22
28.	College course work or a Bachelor's degree increases my job security.	.19	.12	.12	.64	.47
29.	I receive encouragement from my police co-workers to continue my education.	.22	.28	.06	.62	.51
30.	I receive encouragement from my superior officers to continue my education.	.26	.24	.08	.61	.50
31.	College course work or a Bachelor's degree is a requirement for my current job.	.05	.17	.17	.56	.37

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Table 2 (continued)

Influence Variables/Items	Factors 1	2	3	4	h^2
32. College course work or a Bachelor's degree is necessary for promotion.	.15	.12	.19	.52	.34
Rotated Eigenvalues	9.49	1.65	1.39	1.10	
% Variance Explained (Rotated)	29.70	5.20	4.30	3.40	
Cum % Variance Explained (Rotated)	29.70	34.90	39.20	42.60	

discriminatory variables for the discriminant analysis.

Background and job related variables which were entered into the discriminant analysis are listed in Table 3. These variables

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Insert Table 3 near here

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were supplemented by composite factor scores from the 3 Reality and 4 Influence factors introduced earlier. An initial stepwise discriminant analysis was conducted with an F to enter or remove of 1.0. This procedure allowed all but the most trivial discriminating variables to enter the equation and permitted inspection of the contributions of the variables toward defining the discriminant functions. From this initial equation it became apparant that a subset of the variables could be used to more meaningfully distinguish among the three law enforcement officer groups. To produce this reduced equation the final discrimination analysis was run with a stepwise entry of variables (Wilks Lambda criterion for group separation) and an F to enter and removal = 3.1 and 3.0, respectively. Of the original 21 variables only 12 were included in the final analysis with a loss about than one percent in explained variance from that explained by all 21 variables.

The canonical discriminant functions derived using the above procedure for determining the best set of discriminating variables are summarized in Table 4. The first discriminating

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Insert Table 4 near here

Table 3

Background and Job Related Variables
Entered Into A Discriminant Analysis to Distinguish
Among the Educational Aspirations/Attainment of Police Officers

Variable	Dichotomy Coding (Where Applicable)
Race	White = 1, Other = 0
Sex	Female = 1, Male = 0
Age	____
Marital Status	Married = 1, Other = 0
Number of Dependents	____
Patrol vs Other Duties	Patrol = 1, Other = 0
Years in Law Enforcement	____
Years Remaining to Retirement	____
Career Orientation	Remain to Retire = 1, Leave or Undecided = 0
Other Employment Orientation	Leave Law Enforcement = 1 Remain or Undecided = 0
Assigned to Shifts	Yes = 1, No = 0
Number of Times Per Year Rotate Shift	____
Department Size	> 10 Sworn Officers = 1, < 10 Sworn Officers = 0

TABLE 4

Canonical Discriminant Functions Predicting Educational Aspirations of Police Officers with Selected Demographic and Attitude Variables.

Function	Eigenvalue	Percent of Total Explained Variance	Canonical Correlation	Total Explained Variance
1	.512	89.8	.582***	33.9%
2	.058	10.2	.234***	5.5%

*** p < .001

function accounted for 89.8 percent of the explained variance while the second function accounted for 10.2 percent; both functions were statistically significant ($p<.001$). The total variance among the three groups explained by the two functions was 39.4 percent.

The discriminating variables with their associated standardized discriminant function coefficients are listed in Table 5 in the order they entered the stepwise discriminant analysis. Inner directed job relevance, age, personal and professional orientations, and years in law enforcement are the most important variables to determining discriminating scores on Function 1.

Insert Table 5 near here

These 4 variables contribute more toward determining discriminating scores on Function 1 than do the other 8 variables. The greatest contributors toward function scores on function 2 are race, years in law enforcement, and age.

The discriminant scores evaluated at the group means are shown in Figure 1. High scores on Function 1 tend to separate those who did not want the degree from those who planned to pursue the degree and those who were pursuing the degree. Individuals who had negative scores on Function 1 and positive scores on Function 2 tend to be those who planned the degree but were not pursuing it. Those individuals who obtained negative scores on Function 1 and negative scores on Function 2 tend to fall into the group who were pursuing the degree. However, Function 2 did not serve to clearly distinguish those who planned to obtain the

TABLE 5

Standardized Canonical Discriminant Function Coefficients for Variables Used to Distinguish among Police Officers Grouped by Level of Educational Aspiration/Attainment.

Variable	Function 1	Function 2
Job Relevance, Inner Directed (Influence)	.446	-.041
Age	.408	.391
Personal and Professional Orientations	.345	.242
Race	.138	-.550
Job Relevance, Outer Directed (Reality)	.228	.341
Other Career Orientation	-.129	-.306
Social Contact	-.156	.241
Career Orientation	.110	.380
Department Size	-.170	.195
Years in Law Enforcement	.232	-.524
Patrol vs Other Duties	.168	.154
Cost/Convenience (Influence)	-.040	-.380

degree from those who were pursuing it. The group centroid for those who were pursuing the degree (-1.14 on Function 1, -.698 on Function 2) is in the edge of the discriminate function space assigned to those who were planning but not pursuing the degree. In order for these discriminant functions to be useful to distinguish degree pursuers from the other two groups an individual had to obtain either Function 1 or Function 2 scores at least one standard unit below the mean combined with function scores at or below the mean on the remaining function.

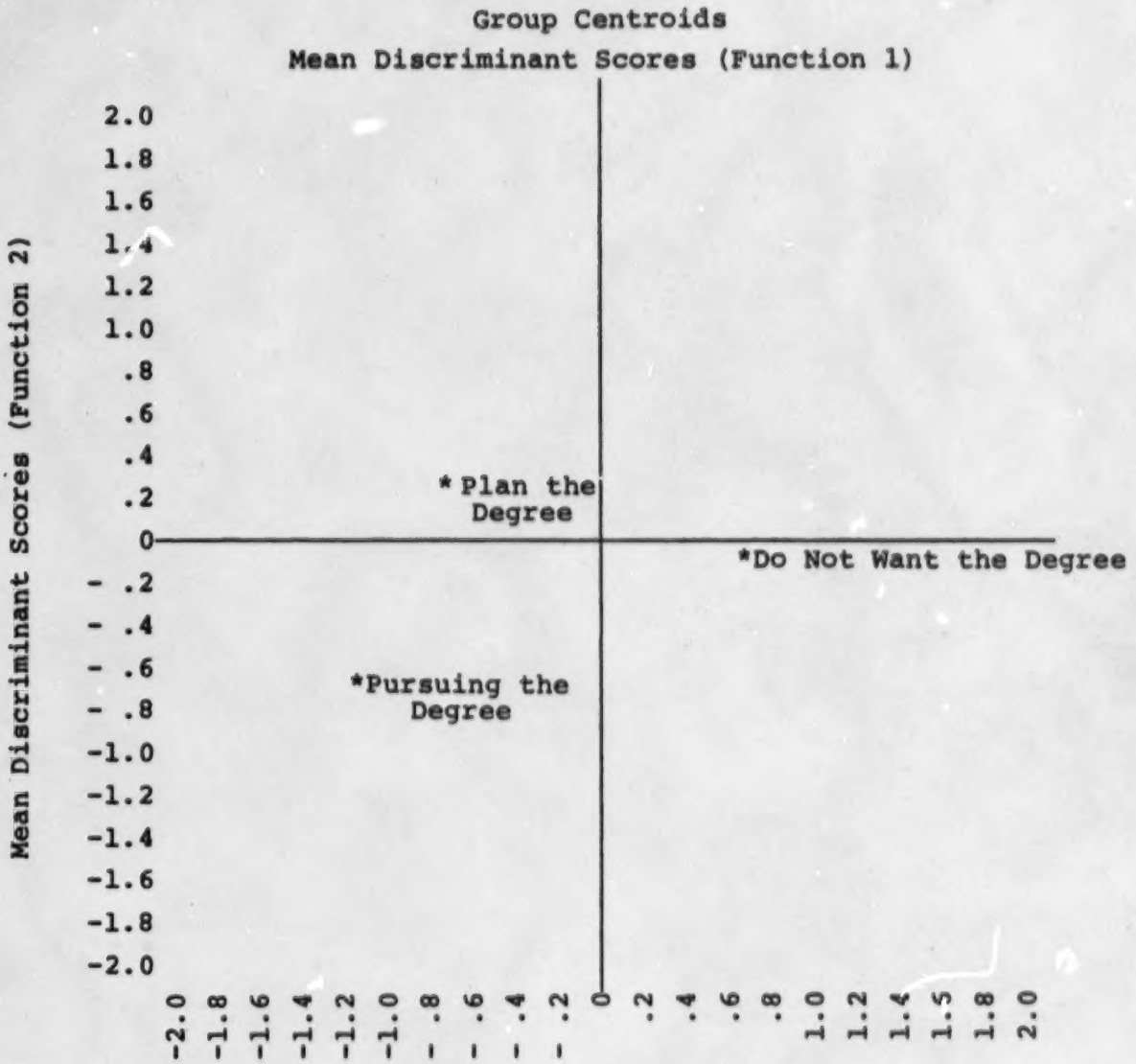
Insert Figure 1 near here

To determine how the individual discriminating variables related to the educational aspirations and attainment of police officers, one way analyses of variance were conducted. The results of these analyses of variance are presented in Table 6.

Insert Table 6 near here

Between group differences were statistically significant ($p<.05$) on all variables except shift assignment, shift rotation, miles to college, and cost/convenience (Reality). These 4 variables were prevented from being part of the discriminant correlation matrix through the F to enter ($F>3.1$) discussed earlier. The analysis of variance confirmed that the discriminant functions did not include any supressor variables.

To help clarify the picture of how the individual variables contributed to the discriminant functions, Scheffe a posteriori



Group	Function 1	Function 2
Do Not Want Degree	.607	-.029
Plan To Get Degree	- .745	.223
Pursuing The Degree	-1.138	-.689

Figure 1. Discriminant Function Scores Evaluated At Group Means.

Table 6

Summary of F Tests to Determine Differences Between Law Enforcement Officers Varying in Educational Attainment/Aspirations on Selected Demographic, Job Related, and Motivational Characteristics

Variable	Fisher's F Statistic [a]
Race	34.4***
Sex	5.9**
Age	141.8***
Marital Status	12.1***
Number of Dependents	6.8**
Patrol vs Other Duties	.5.0**
Years in Law Enforcement	144.2***
Years to Retirement	18.2***
Career Orientation	10.9***
Other Employment Orientation	8.0***
Shift Assignment	1.8 n.s.
Shift Rotation	.7 n.s.
Department Size	3.6*
Miles	1.5 n.s.
Personal and Professional Orientations	145.6***
Job Relevance, Outer Directed (Reality)	37.6*
Cost/Convenience (Reality)	1.4 n.s.
Job Relevance, Inner Directed (Influence)	176.6***
Social Contact	8.5***
Cost/Convenience (Influence)	7.3***
Job Relevance, Outer Directed (Influence)	8.9***

*p < .05
**p < .01
***p < .001
[a] 2, 1614 Degrees of Freedom

contrasts of group means were conducted. The results of these analyses are reported in Tables 7 and 8. Interpretation of these

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Insert Tables 7 and 8 near here

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contrasts indicate that those who chose to not get a college degree included fewer females (3% vs 7 and 6%) than the other groups, were older (39 vs 32.7 and 32.1 years), had more dependents (2.6 vs 2.4 and 2.1), had more years in law enforcement (14.1 vs 8.7 and 8.8), and were less likely to agree that a college degree was important for personal or professional reasons. Unlike the other two groups they did not agree that a degree was job relevant. In addition, those who had decided against a degree in higher education included relatively fewer patrolmen, women, and non-whites than did the group who planned to get a degree but were not pursuing the degree.

Those who planned to get a degree were less likely than the non degree seekers to agree that desire for social contact influenced their college aspirations. This group included more patrolmen and more females. The degree planners included relatively fewer whites than the other groups and had more years remaining until retirement.

Those who were actually pursuing the degree were more oriented toward leaving law enforcement (8% vs 2%), were more likely to agree that a degree was job relevant and important to their personal and professional goals. They were less likely than the non-degree seekers to agree that cost or convenience was an important factor influencing their degree pursuit. They were

Table 7

Comparisons of Mean Responses of Law Enforcement Officers Varying in Educational Aspirations/Attainment on Selected Demographic and Job Related Characteristics

Variable	GROUP 1 Do Not Want Degree	GROUP 2 Plan to Get the Degree	GROUP 3 Pursuing the Degree	Scheffe' Contrast
Race	.90	.74	.86	* 2 < 1 and 3
Sex	.03	.07	.06	* 1 < 2
Age	39.0	32.7	32.1	* 1 > 2 and 3
Marital Status	.83	.72	.78	* 1 > 2
Number of Dependents	2.6	2.4	2.1	* 1 > 2 and 3
Patrol vs Other Assignments	.66	.74	.67	* 1 < 2
Years in Law Enforcement	14.1	8.7	8.8	* 1 > 2 and 3
Years Remaining to Retirement	9.4	13.3	10.9	* 2 > 1 and 3
Career Orientation	.77	.76	.59	* 3 < 1 and 2
Other Employment Orientation	.02	.02	.08	* 3 > 1 and 2
Shift Rotation	8.7	9.6	9.9	n.s.
Shift Assignment	.58	.54	.60	n.s.
Department Size	.96	.99	.96	n.s.
Miles to College	16.1	15.6	20.0	n.s.

*p < .10

Table 8

Comparisons of Mean Reality and Influence Factor Scores of Law Enforcement Officers Varying in Educational Aspirations/Attainment on Selected Demographic and Job Related Characteristics

Variable	GROUP 1 Do Not Want Degree	GROUP 2 Plan to Get the Degree	GROUP 3 Pursuing the Degree	Scheffe' Contrast[a]
Personal and Professional Orientations	.29	-.34	-.64	*1 > 2 > 3
Job Relevance, Outer Directed (Reality)	.14	-.13	-.42	*1 > 2 > 3
Cost/Convenience (Reality)	.00	.02	-.10	*n.s.
Job Relevance, Inner Directed (Influence)	.33	-.40	-.64	*1 > 2 > 3
Social Contact	-.07	.12	-.04	*1 < 2
Cost/Convience (Influence)	.02	-.09	.20	*3 > 1 > 2
Job Relevance, Outer Directed (Influence)	.07	-.08	-.17	*1 > 2 and 3

[a] $p < .10$

also less likely to state that they would remain in law enforcement until retirement than the other two groups (59% vs 77% and 76%). They were younger (32.1 vs 39.0), had fewer dependents (2.1 vs 2.6), and fewer years in law enforcement (8.8 vs 14.1) than those who were not seeking a degree.

The total structure coefficients (function-variable correlations) can be used to interpret and define the discriminant functions. The results of the contrasts of group means of the predictor variables are generally consistent with the total structure coefficients (see Table 9).

Insert Table 9 near here

Positive scores on discriminant Function 1 separate those who were not seeking a college degree from the other two groups. The four variables which define Function 1 are age, years in law enforcement, inner directed job relevance, and personal and professional orientations. High scores on this function are predictive of non-degree seeker group membership. These individuals who did not want a college degree were older, had more experience in law enforcement and perceived that college was not important to them personally; nor did they consider college was relevant to their professional expertise as law officers. At the other end of the Function 1 continuum are those individuals who said they wanted the degree or were actually pursuing a college education. This end of Function 1 described two groups who were younger, had fewer years in law enforcement and felt

TABLE 9

Correlations between Variables and Discriminant Function Scores
(Total Structure Coefficients)

Variable	Function 1	Function 2
Job Relevance Inner Directed (Influence)	.728	.036
Personal and Professional Orientations	.670	.130
Age	.662	-.140
Years in Law Enforcement	.661	-.253
Job Relevance Outer Directed (Reality)	.346	.226
Race	.290	-.476
Social Contact	-.141	.258
Career Orientation	.115	.401
Rank	-.105	-.253
Other Career Orientation	-.091	-.354
Department Size	-.073	.216
Cost/Convenience (Influence)	.033	-.397

that a college degree was important to them personally and professionally.

Function 2 serves primarily to distinguish the degree planners from the degree pursuers. The variables with the strongest relationship with this function are race, career orientation, the influence of costs and convenience and other career orientation. Those who scored high on Function 2 and low on Function 1 tended to be those who planned a degree but were not pursuing it. They were more career oriented than the degree pursuers and agreed that cost and convenience were important factors influencing whether they would complete the degree. This group contained relatively more non-whites than the other groups.

The group who were pursuing the degree were more oriented toward leaving law enforcement than those who were not attending college. They did not believe cost or convenience was a factor influencing their decision to attend college and they were less law enforcement career oriented than the other groups.

In conclusion, selected background job related variables and motivational factors discriminated among those who did not plan to attend college, those who planned to attend but were not taking courses, and those who were actually pursuing the degree. The discriminant analysis most clearly distinguished those who said they did not want the degree from the other groups. These individuals tended to be older, more experienced officers who did not believe a college degree was relevant or important to their career.

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